

MATEMÁTICA II

1) Encontrar $\frac{dy}{dx}$ para

a. $y = 2\sqrt[3]{x} + \frac{x^9}{3} + 2x^3 + 15x + 2$

b. $y = (4x^2 - x^3)(x - x^3)$

c. $y = \frac{(4x^2 - x^3 + x + 3)}{(x - x^3 + 5)}$

2) Encontrar $\frac{dy}{dx}$ para

a. $y = (3x^3 + 9x^2 + 9)^8$

b. $y = \left(\frac{x^2 + x + 5}{x^2 + 2}\right)^{-5}$

c. $\frac{d}{dx}(x^3 + 5x)^5(x^2 + x)^2$

d. $\frac{d}{dx}\left(\frac{(x^3 + 5x)^5}{(x^2 + x)^2}\right)$